

June 1967

Brief 67-10170

# NASA TECH BRIEF



NASA Tech Briefs are issued to summarize specific innovations derived from the U.S. space program, to encourage their commercial application. Copies are available to the public at 15 cents each from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

## Data Retrieval System Provides Unlimited Hardware Design Information

In order to establish, control, and document the requirements for the design of checkout equipment for a sophisticated hardware system, it is necessary to design a large volume data storage and retrieval capability. Rather than establish separate card decks for each equipment combination as is done in conventional systems, it has been found more efficient to store the same data uniquely on magnetic tape identified as to system, location, and component. All data is input to the tape on a single format card that specifies the system in question, location and component effectively, the test point identification number, the operator's initial, the date, a data code, and the data itself. A single format address card permits computer sort and filing. Card information is compared to the computer program for legality and errors flagged by tabular update reporting. The report indicates the data record to be changed, the changes, changes rejected due to errors, the data record resulting, and a summary of all rejected changes. Data codes are used in logical equations that specify the data records selected and the sequence and format of their output. These equations permit technical personnel to generate tabular reports for documents plus

cards or edited tapes as input media to other data systems. These equations have permitted variations of outputs as required by a specific complex program without continuously modifying the main computer programs of the basic data processing system.

### Note:

Inquiries concerning this invention may be directed to:

Technology Utilization Officer  
Manned Spacecraft Center  
Houston, Texas 77058  
Reference: B67-10170

### Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: R. L. Swanson and R. D. Rawson  
of North American Aviation, Inc.  
under contract to  
Manned Spacecraft Center  
(MSC-1144)  
Category 01